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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,594

05/17/2006

Antonio Buxade Vinas

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WOOD, PHILLIPS, KATZ, CLARK & MORTIMER

500 W. MADISON STREET

SUITE 3800

CHICAGO, IL 60661

EXAMINER

OH, TAYLOR V

ART UNIT

PAPER NUMBER

1625

MAIL DATE

DELIVERY MODE

03/29/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,594	Applicant(s) VINAS ET AL.	
	Examiner Taylor Victor Oh	Art Unit 1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 0122.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 3,7 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8-17 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Final Rejection

The Status of Claims

Claims 1-24 are pending.

Claims 1-2,4-6,8-17,19-24 are rejected.

Claims 3,7,18 are withdrawn from consideration .

Priority

2. In order to correct the previous inadvertent mistake made in the priority; it is noted that this application is a 371 of PCT/ES04/00511(November 17 , 2004), which has a foreign priority document, Spain P200302806 (11/28/2003).

The Specification

The specification is objected to because of the following informalities:

The amendment filed on 12/22/09 for the specification has introduced new paragraphs on page 4, after line 22: “

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Those described hydroxyl protective groups are ethers, esters, and, for 1,2- and 1,3-DIOLS, cyclic acetals and ketals and cyclic ortho esters.

The ethers include:

Methyl

Substituted Methyl Ethers

Methoxymethyl (MOM Group)

Methylthiomethyl (MTM Group)

Benzyloxymethyl

t-Butoxymethyl

2-Methoxyethoxymethyl (MEM Group)

2,2,2-Trichloroethoxymethyl

Bis(2-chloroethoxy)methyl

2-(Trimethylsilyl)ethoxymethyl

Tetrahydropyranyl (THP Group)

3-Bromotetrahydropyranyl

Tetrahydrothiopyranyl

4-Methoxytetrahydropyranyl

4-Methoxytetrahydrothiopyranyl

4-Methoxytetrahydrothiopyranyl S,S-Dioxido

Tetrahydrofuranyl

Tetrahydrothiofuranyl

Substituted Ethyl Ethers

1-Ethoxyethyl

1-Methyl-1-methoxyethyl

1-(Isopropoxy)ethyl

2,2,2-Trichloroethyl

2-(Phenylselenyl)ethyl

t-Butyl

Allyl

Cinnamyl

p-Chlorophenyl

Benzyl

p-Methoxybenzyl

o-Nitrobenzyl

p-Nitrobenzyl

p-Halobenzy

p-Cyanobenzy

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3-Methyl-2-picolyl N-Oxido
 Diphenylmethyl
 5-Dibenzosuberyl
 Triphenylmethyl
 α -Naphthylidiphenylmethyl
 p-Methoxyphenyldiphenylmethyl
 p-(*p*'-Bromophenacyloxy)phenyldiphenylmethyl
 9-Anthryl
 9-(9-Phenyl)xanthenyl
 9-(9-Phenyl-10-oxo)anthryl (Tritylone Group)
 Benzisothiazolyl *S,S*-Dioxido

Silyl Ethers

Trimethylsilyl (TMS Group)
 Triethylsilyl
 Isopropyldimethylsilyl
t-Butyldimethylsilyl (TBDMS Group)
 (Triphenylmethyl)dimethylsilyl
t-Butyldiphenylsilyl
 Methyl*i*sopropylsilyl
 Methyl*di-t*-butylsilyl
 Tribenzylsilyl
 Tri-*p*-xylylsilyl
 Triisopropylsilyl
 Triphenylsilyl

The esters include:

Formate
 Benzoylformate
 Acetate
 Chloroacetate
 Dichloroacetate
 Trichloroacetate
 Trifluoroacetate
 Methoxyacetate
 Triphenylmethoxyacetate
 Phenoxyacetate
 p-Chlorophenoxyacetate
 2,6-Dichloro-4-methylphenoxyacetate
 2,6-Dichloro-4-(1,1,3,3-tetramethylbutyl)phenoxyacetate
 2,4-Bis(1,1-dimethylpropyl)phenoxyacetate
 Chlorodiphenylacetate
 p- \oplus -Phenylacetate
 3-Phenylpropionate
 3-Benzoylpropionate

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Isobutyrate
Monosuccinoate
4-Oxopentanoate (Levulinate)
Pivaloate
Adamantoate
Crotonate
 4-Methoxycrotonate
(*E*)-2-Methyl-2-butenate (Tigloate)
Benzoate
 o-(Dibromomethyl)benzoate
 o-(Methoxycarbonyl)benzoate
 p-Phenylbenzoate
 2,4,6-Trimethylbenzoate (Mesitoate)
 p- \odot -Benzoate
 α -Naphthoate

Carbonates

Methyl
Ethyl
2,2,2-Trichloroethyl
Isobutyl
Vinyl
Allyl
Cinnamyl
p-Nitrophenyl
Benzyl
 p-Methoxybenzyl
 3,4-Dimethoxybenzyl
 o-Nitrobenzyl
 p-Nitrobenzyl
S-Benzyl Thiocarbonate

Miscellaneous

N-Phenylcarbamate
N-Imidazolylcarbamate
Borate
Nitrate
N,N,N',N'-Tetramethylphosphorodiamidate
2,4-Dinitrophenylsulfenate

For protection of 1,2- and 1,3-DIOLS, the cyclic acetals and ketals include:

Methylene
Ethylidene
 1-*t*-Butylethylidene
 1-Phenylethylidene

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2,2,2-Trichloroethylidene
 Acetonide (Isopropylidene)
 Butylidene
 Cyclopentylidene
 Cyclohexylidene
 Cycloheptylidene
 Benzylidene
 p-Methoxybenzylidene
 2,4-Dimethoxybenzylidene
 p-Dimethylaminobenzylidene
 o-Nitrobenzylidene
 p- \odot -Benzylidene
 Phenanthrylidene Derivative;

whereas the cyclic ortho esters include:

Methoxymethylene
 Ethoxymethylene
 Dimethoxymethylene
 1-Methoxyethylidene
 1,2-Dimethoxyethylidene
 α -Methoxybenzylidene
 1-(*N,N*-Dimethylamino)ethylidene Derivative
 α -(*N,N*-Dimethylamino)benzylidene Derivative
 Disiloxanylidene Derivative
 Stannoxane Derivative
 Cyclic Carbonates
 Cyclic Boronates
 Phenyl Boronate
 p- \odot -Phenyl Boronate

”

However, the newly introduced paragraphs are not literally present and shown in the original specification. A close inspection of the original claims and specification do not provide antecedent basis for the proposed changes. New matter can not be introduced into specification at any time during the prosecution, unless there is a supporting description that would support the proposed changes. Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

1. Applicants' argument filed 12/22/09 have been fully considered but they are not persuasive.

The objection of Claims 8 and,17 have been withdrawn due to the modification of the claims; however, in claim 1 ,there is still the part of the chemical formula(A1) present in the claim; this limitation is belonged to the other groups I, and III-IV.

Therefore, this needs to be removed from the claims.

Appropriate correction is required.

Claims 1-2, 4-6,8-17,19-24 are objected to because of the following informalities:

In Claim 1, the new phrase "selected from ethers, ester, cyclic acetals and ketals, and cyclic ortho ester" is introduced before the phrase "a hydroxyl protective group" .

However, the newly introduced phrases "selected from ethers, ester, cyclic acetals and ketals, and cyclic ortho ester" are not literally present and shown in the original specification. A close inspection of the original claims and specification do not provide antecedent basis for the proposed changes. New matter can not be introduced into specification at any time during the prosecution, unless there is a supporting

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description that would support the proposed changes. Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-2, 4-6,8-17,19-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In Claim 1, the new phrase “selected from ethers, ester, cyclic acetals and ketals, and cyclic ortho ester” after the phrase “a hydroxyl protective group” is recited. This phrase has not been literally present in the original specification (see page 10 ,line 23; page 11, line 4, and page 17, lines 18-19). Therefore, the addition of the newly

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introduced phrases "selected from ethers, ester, cyclic acetals and ketals, and cyclic ortho ester" to the claim does not provide antecedent basis for the proposed changes.

A close inspection of the original claims and specification do not provide antecedent basis for the proposed changes. New matter can not be introduced into specification at any time during the prosecution, unless there is a supporting description that would support the proposed changes. Applicant is required to cancel the new matter in the reply to this Office Action.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The rejection of Claims 1-2,4-6,8-17,19-21,23-24 under 35 U.S.C. 112, second paragraph, has been withdrawn due to the modification made in the claims. However, in claim 22, there is still some issue to be resolved in the following:

In claim 22, the phrase "formula(I) is obtained from formula(VI)" is recited. This expression is vague and indefinite because the claim does not elaborate how "formula(I) is obtained from formula(VI)"; the skilled artisan in the art is unable to figure out how it is achieved. Appropriate correction is required.

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In view of the revised and new claims 22-24, the prior art rejection seems necessary in the followings:

Claim Rejections - 35 USC § 102

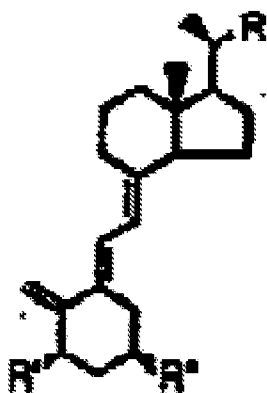
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated clearly by Choudhry et al(J. Org. Chem. , 1993, 58, p. 1496-1500).

Choudhry et al discloses the following compound as shown below(see page 1496, right col.):



7 R = CHO; R', R'' = OTBDMS

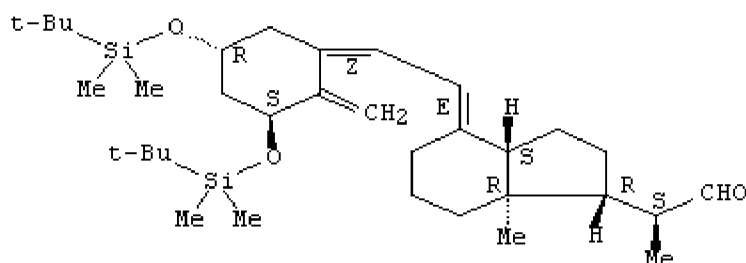
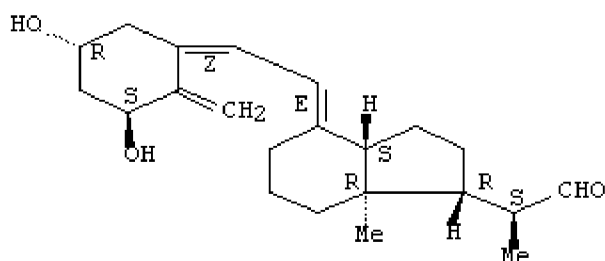
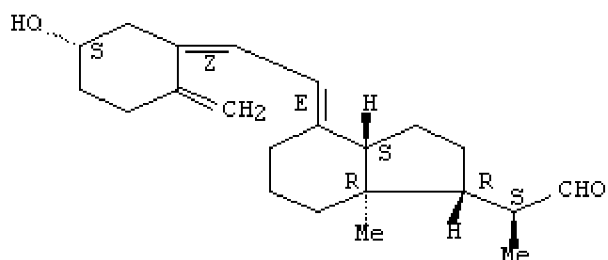
This is identical with the claims.

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Claims 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated clearly by DeLuca et al(US 4,847,0122).

DeLuca et al et al discloses the following compounds as shown below(see Fig.

1):



These are identical with the claims.

Applicants' Argument

2. Applicants argue the following issues:

- i. Regarding claim 19 , the claim does not require a process step of deriving photosensitizers from anthracene, acridine or phenazine since the attached exhibits B-D do show how they are derived.

Applicants' arguments have been noted, and the arguments are found to be persuasive.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Taylor Victor Oh/

Primary Examiner, Art Unit 1625

3/26/10